Source Water Protection Citizen Technical Advisory Committee (CTAC)

Source Water Assessment Plan Update - Subcommittee Meeting

November 29, 2018
Final Meeting Minutes
Meeting Location: Tidewater Utilities Conference Room

WELCOME & INTRODUCTIONS - Douglas E. Rambo, P.G., DNREC, Division of Water

Mr. Rambo called the meeting to order at 10:07 a.m. and welcomed everyone. He mentioned to the Committee that he would like to stay on track with today's agenda as much as possible but they are certainly not tied to it.

Introductions were made around the room. The attendance list is included at the end of the meeting minutes.

CONTINUATION OF PREVIOUS DISCUSSION ON CHAPTER 4: CONTAMINANT SOURCE INVENTORY & WATER QUALITY DATA – Douglas E. Rambo, P.G., DNREC, Division of Water

Mr. Rambo said, "Back at our last meeting in September we were discussing Chapter 4: Contaminant Source Inventory & Water Quality Data and the listing of the contaminants of concern that is in the existing Source Water Assessment Plan. We also had a very lively discussion on water quality and secondary standards and non-regulated contaminants and that is where I wanted to pick-up today." He continued, "It was asked at the last meeting where the requirement to use the Safe Drinking Water Act Maximum Contaminant Levels (MCL) came from for use in evaluating well water for the Program and it is actually listed in EPA's guidance document for State Source Water Assessment and Protection Programs where it says that the starting basis for water quality evaluation for Source Water Assessments resides with the use of the EPA MCL's." Mr. Rambo stated he wanted to begin with this first and foremost and he mentioned the State can add parameters to that list based upon issues that take place and have been found in investigations in Groundwater and Surface Water.

Mr. Rambo then turned the meeting over to Mrs. Amber Bataille since she began this discussion at the last meeting in September. Mrs. Bataille began by saying, "The discussion previously started was, if there's a Maximum Contaminant Level (MCL) that is either a secondary, primary, or health advisory limit, if in the Source Water Assessment it's identified based on raw water quality, I have to adjust the susceptibility of a system based on, even naturally occurring secondary standards such as iron, magnesium, chloride, sodium, and iron and sodium are two of the large ones that could exceed standards because there's a limit that's fairly low and a lot of times the background concentration of the aquifer exceeds those standards and there's nothing that anyone really can do to adjust them because it's in the aquifer and it's natural geology. Even to some extent arsenic in some of the aquifers at background levels naturally occurring exceeds the standards." Mrs. Bataille continued, "I have to give a system, for example if it's a Tidewater or Artesian system because one well exceeds the iron even though they're treating it, I

have to say that it exceeds standards for metals because it technically does because there's a secondary standard and we're looking at secondary standards. So the discussion was how can we identify that but not necessarily have the public perception that this well is producing contaminated water when it's not and it's being treated before it gets to them?"

Mr. Hassan Mirsajadi asked Mrs. Bataille, "What's the practical implication of including that?" Mrs. Bataille replied, "The way the Plan is written now, if I have any water quality data, I have to go back and adjust the susceptibilities of each well in each system based on any water quality data that I actually have. Everything else we're inferring that there's a potential for 'these', but at least with water quality data I can say 'this came from this well' and we only use raw water that we know is coming from a particular well so it's been identified. If it exceeds any MCL then, automatically, if it's half of the limit, it gets adjusted. If it exceeds the limit, then it's adjusted to exceeds standards or if it's half of the limits of very high susceptibility to that particular contaminant then the contaminants are grouped by, because iron is a metal, these eight contaminant classes. Then the well is given a susceptibility for each contaminant class of metals, organics, other organics, inorganics, polychlorinated biphenyl (PCB)'s. There's the whole eight breakdown. Then that well is given a susceptibility. So if it exceeds iron one time in five years, it exceeds standards and then that well is given an exceeds standards and then I look at each well in the system and give each well a susceptibility and then we take a look at all the wells and give it a system wide susceptibility and it's always the highest of all the wells. So if they have one well in the exceed (category) or ten wells and one well exceeds then that whole system will have exceeds standards for metals or whatever it is. There are certain contaminants that we obviously want if it exceeds for Methyl tert-butyl ether (MTBE). We want that to be made aware but in terms of some of your naturally occurring or secondary standards, it's the nature of the way that the Plan was written."

Mr. Mirsajadi asked, "And do they have to do anything to treat it or can they explain that it's a natural condition?" Mrs. Bataille replied, "The report says that they can be naturally occurring but you would have to go back to reports that say 'this is why it's exceeding.' We do explain why it exceeds standards, for example iron, but in terms of a snapshot that the public would see, if they see the system wide susceptibility which is one table it says 'metals – exceeds standards' or 'other inorganics' for having pH that's a little low coming out of the aquifers because in Delaware, especially if you're pulling unconfined, we can have pretty acidic water. If it's five and a half, it's outside that range and even though they're doing pH adjustments in terms of their treatment that's being served to the public that still gets the Source Water Assessment based on naturally occurring things. It's somewhat scary looking for those that are uneducated about it. I think it goes back to education but I don't know if there's maybe a better way that we can distinguish a breakdown."

Mr. Todd Keyser said, "You mentioned in part of your description there that we're talking about one sample and one occurrence and that one sample and one occurrence is driving the process." Mrs. Bataille agreed. Mr. Keyser continued, "So stepping back to that one sample and that one occurrence that's statistically insignificant as it relates to all the other samples that occur, is there something early on in the process that says we have this one occurrence, should we go resample before we make a determination of what drives a higher susceptibility analysis? Is that something that's feasible? Is that something that EPA would be willing to accept? Is that

something that the Source Water Program would be willing to accept?" Mrs. Bataille replied, "One thing that is frustrating for the Source Water Program is all of the water quality data that we are pulling is raw water data that we're getting from the Office of Drinking Water." Mrs. Bataille continued to explain that the Office of Drinking Water are certified samplers and they're the ones that are providing the water quality information to the Source Water Program. She said, "We're looking at five years of samples and it seems like we're getting less and less raw water samples that we can identify to a specific well. I can't use finished water because I don't know how many wells are pumping at that time, which wells they're coming from. I need them to be identified by 'this water came from this particular well' and sometimes we're doing susceptibility analysis with no water quality in the past five years and then sometimes we will request from Artesian and Tidewater, 'we know you have taken more samples than what the Office of Drinking Water has and can you provide those.' But with your small municipalities that aren't doing that or your small mom and pop systems that literally only rely on the Office of Drinking Water samples, if those samplers aren't taking raw water samples and identifying them as raw water samples, I can't use them as part of the assessment."

Ms. Shannon said, "That's a very good point because we take raw water samples. We're not required to. We do it for our operational purposes so that we can determine the kind of treatment." Mrs. Bataille responded, "You're looking at it as an economical standpoint." Ms. Shannon said, "Right, but there are many systems in the State that aren't doing that so those that do and report that data stick out like sore thumbs. The biggest concerns that I have with the way that this has been done and the way the public sees this is that if I were searching out an area to relocate our corporate headquarters to, I'm going to look at the water quality data. I'm going to look at that and look for economical development, I'm going to look at everything. And if I see certain things, I'm going to take that area off the list." Mrs. Bataille and Ms. Shannon continued to discuss.

Mrs. Anita Beckel added, "I think why we designed the original plan to work like that is we were trying to decide what is susceptibility and you can look around a well and maybe not see any obvious sources of contamination but if a contaminant comes up in the well then obviously it is susceptible to that contaminant. I don't think we foresaw that we have to put all these contaminants in groups and I think it is a little bit alarming when you say your well is susceptible to metals. Because when I think of metals, I think of Arsenic, Beryllium, Cadmium, Chromium, regulated chemicals. But it's just sodium and the iron and the chlorides that are triggering those things so I don't know if we could have a group of secondary standards, the difference between traced metals or heavy metals compared to just metals. Maybe if it's a secondary standard it would not trigger that because a lot of times they do put the susceptibility in a Consumer Confidence Report and that is all you see and it sounds bad. Much worse than it really is." Ms. Shannon said, "Because even a contaminant that is not regulated but has health concerns, well that is important. Something that doesn't have health concerns is something a little different." Mrs. Beckel continued, "And I think at the beginning of the Program we were being very protective. And to put that sodium at 20 mg per liter, and that only applies to people that are on severely salt restricted diets it doesn't apply to everybody, you can be protective and let people know about it but you don't want to alarm them unnecessarily, either."

Mrs. Laura Mensch said, "I think I remember at the last meeting we came up with two points about this topic. One of them was differentiating the value we give to primary versus secondary so that would be adjusting the matrix and that seems like, from what was said at the last meeting and today, that would be good. So you're going to take more compounds that have health risks and value them stronger in some way." Ms. Shannon replied, "That makes sense." Mrs. Mensch continued, "We were also talking at the last meeting about the terminology and the idea of changing it." Mrs. Mensch continued to discuss with the Committee.

Mr. Paul Cartanza, Jr., said, "When you also go through your susceptibilities, why don't we try to make them more uniform instead of having two different variations? It just seems like if you want to educate people you need to really make them understand where these are coming from and if you've got three different tiers it really just throws, in my opinion, a lot of mud in the water and it confuses people. And how many times are you testing the wells when you find an issue? Do you go back week after week and see where there is a fluctuation? Is it rain, is it dry? Where's the fluctuation?" Mrs. Bataille replied, "At this point the way that the water quality data is collected is that the Office of Drinking Water, which regulates public water systems, is charged with collecting and making sure that the water, and they're actually making sure that the finished water, once it comes out of the ground, or Wilmington, United (which is now SUEZ), etc., once it enters the distribution system to go to homes and businesses, that at that point it meets the standards and it has to meet the standards throughout the entire distribution system. We're looking at it before it ever gets to the public. With Tidewater and Artesian, it's coming out of the well and they're doing what they need to do, pH adjustments, chlorination, etc. We're looking at it prior to that treatment process. This is kind of giving those utilities an idea of what they could potentially be seeing in the future, the susceptibility analysis, what their susceptible to, and we're looking at both land use around the well and also any known sources of contamination that are in the area and that's what the susceptibility analysis is based on. And then what we do, if the Office of Drinking Water has that water quality data, we're pulling that to give a better picture. They're never adjusted down based on the water quality but if they've adjusted, they've adjusted up in terms of being more susceptible to something." Mr. Cartanza said, "But that's what I'm saying. You're saying one person is doing 'this' then the finished product is 'over here'. Well, basically, the finished product is really what the people are drinking. It's not the beginning of what's happening. If they're adjusting it for different things, then you're really worrying the people in the beginning but yet it's not at the end where they're actually drinking the water." Mrs. Bataille said, "And the purpose of this Program is to look at the beginning processes. Where the utilities at the end of the year have to put out a Consumer Confidence Report and that's where they say at the end 'you were fine'. It's almost like 'look at how bad it was in the beginning and look how good it is in the end', hopefully." The Committee continued to discuss. Mrs. Beckel mentioned how it's supposed to be a preventative program and discussed with the Committee.

Mr. Cartanza said, "I recharge all over. Farming is farming and it's been farmed for centuries and what really changes that." Ms. Shannon asked Mrs. Bataille, "What do you do for a small system? How do you come up with a susceptibility determination for a small system that you have no raw water data for?" Mrs. Bataille replied, "So the susceptibility is based on discreet sources. So the discreet sources are listed in Chapter 4." Ms. Shannon said, "So if you have no raw water data and there's no source out there, do you give them a low susceptibility?" Mrs.

Bataille replied, "No, it's based on well construction and land use because the only thing we have at that point is the land use." Mrs. Bataille continued to discuss. Mr. Matthew Grabowski asked Ms. Shannon how often does that occur without any data and Ms. Shannon replied, "Often, because water utilities are not required to test raw water. We do it but it's not something most utilities do." Mrs. Bataille said, "It's becoming harder and harder to get raw water data from wells in the past five years as there's been a change in funding both to the Office of Drinking Water and Operations in the Office of Drinking Water. It's not all their fault. It's expensive to do this. There's another report, 305(b), that's done every two years and over the course of the past two or three 305(b) reports, the person that's writing that report is finding it more difficult to get raw water samples." Mrs. Bataille continued to discuss.

Mrs. Mensch asked, "Do you know if other states require water utilities to sample raw water or is this the way Delaware is setup?" Ms. Shannon replied, "Pennsylvania doesn't." Mr. Kenny Haggerty said, "Maryland doesn't." Ms. Shannon said, "I don't know of any utilities that would do it unless you're trying to optimize treatment. Small utilities wouldn't do it but anywhere where you have treatment, for example, we do it every three years on a well just to see if anything has changed." Ms. Shannon commented they do that just to check before there is trouble. Mrs. Mensch and Ms. Shannon continued to discuss.

Mrs. Beckel said, "When the original Source Water Plan was developed and there were raw water samples and the Office of Drinking Water wasn't doing anything additional to their normal process to support the Source Water Program other than what they were already doing, there are written policies that say a new well has to be sampled and approved before it can be turned on so you have those original samples and then what would happen, it says in the Sanitary Survey Guidance, you're supposed to review the system's raw water data when you conduct a sanitary survey. But, since the Office of Drinking Water was conducting all the compliance monitoring, even though the regulations are written that the water systems are doing that, they collected raw water samples during the sanitary survey and would compare the raw water to the finished water to see if they had the appropriate treatment. If maybe they don't need treatment anymore, maybe when they got treatment they had 10 mg per liter of nitrate and now they have 30 so they might need to increase their number of filters or whatever and where you knew you had known sources of contamination, say VOC's, and you had carbon filtration, then the Office of Drinking Water collected quarterly raw and finished and middle of filter samples to know when the filters had to be changed to prevent an exceedance. It was just policy."

Ms. Cathy Magliocchetti said, "In terms of the Source Water Assessment, a couple of points that I think we want to touch on. I would definitely suggest that you can distinguish between primary and secondary contaminants." Mrs. Beckel said, "I think in that contaminant category where we have other inorganics, we need to work on that." Ms. Magliocchetti said, "The other thing I was mentioning was Health Advisory Ordinance which is a whole different animal, especially considering that even though there's a health advisory limit, for example PFAS, communities in Delaware and other states have decided that they're going to try to go for non-detect. So that's another topic that you might want to focus on in particular when you're looking at susceptibility because that's going to be a bigger issue moving forward. The other thing that I wanted to mention is potentially you could use the Source Water Assessment to shine a light on the fact that you're not getting the type of data, you're not getting the amount of data, and the QA/QC

data that you had previously gotten. The Source Water Assessment that we discussed is coming up on twenty years and things have changed budgetarily in the State in terms of how the Program operates and what data you're getting from the Office of Drinking Water and you could potentially use the Source Water Assessment as a vehicle to point out that many areas that the data is not what you need to effectively run the Program and if a change needs to be made you could highlight that through this document. That's a policy decision but it's definitely something you may want to consider. I would also say that to the extent that we can do a better job communicating the differences between the assessment part and looking at the raw water versus the finished water and what you're getting in your Consumer Confidence Reports you can put those caveats in the assessment. The point I should mention is that the assessment is to draw upon that these things do exist and whether they're anthropogenic or naturally occurring, I still want to know if it's in the water. To the average citizen that might be a red flag but you have to explain what the red flag means." Ms. Magliocchetti continued to discuss and added that you just can't make mention of it because it's hard to explain. Mrs. Bataille said, "That was never the point and I feel like it is important to have that but I feel like there's got to be a better way to express it." Mrs. Bataille continued to discuss how the report does explain things but people actually have to read the report. Mrs. Mensch asked, "Who designs the Consumer Confidence Report?" Mrs. Bataille replied, "That's all on the water utilities." Mrs. Mensch continued, "Because it seems like there could be a design or a complete revision of the approach on how the information is presented and that could overcome a huge part of the communication to the public." Ms. Shannon commented, "The susceptibility is required." The Committee continued to discuss on how to change the verbiage for the public.

Ms. Shannon said that information could be added to the Consumer Confidence Report. Mrs. Mensch said, "If the issue is how it's being perceived by the public, then there's a lot that can be done on that end." Ms. Shannon agreed with Mrs. Mensch and also said that just by changing the words 'exceeds standards' that will make a difference. Mrs. Beckel mentioned that Table 4-1 needs a lot of work. She said, "If we put secondary standards in the category and maybe health advisory standards to break it up." Mrs. Beckel continued to discuss examples to the Committee. Mrs. Mensch added, "I'm wondering if we emphasize 'naturally occurring' versus 'synthetic'."

Mr. Keyser said, "I don't want to go down the rabbit hole of risk assessment but I think that's where we are. We talked about one data plan with one value that was above a standard number. That standard number, maximum contaminant level, (Mr. Keyser then mentioned to Ms. Magliocchetti if he's missing the verbiage here to please help him out) the concept is when you do a risk assessment for human health, you are looking at someone who drinks a particular contaminant at a concentration above a standard for their lifetime and then you're looking at whether or not that if they're drinking it at that concentration for their lifetime there is then a one in a million chance that they may develop a health related effect from that. We aren't saying that MCL is, if it's above, suddenly the world ends but we have to have a bright line somewhere for us from a regulatory standpoint to say right about here is where we say we want to make sure we can get that number below it because we have much more confidence in these lower concentrations, consumption over a lifetime, but there will be less of a health effect. When we get above that number is when we start to say we need to assess the situation more to see if we have a sensitive population, to see if we have someone who is already impacted who may be drinking something that could impact their health more, and maybe we need to make a change to

the treatment. We're approaching this the only way we can which is use our bright line above it, we're saying it's bad. It means we need to continue to look at it above that standard." Ms. Magliocchetti said, "I would agree with that. I would say that the risk assessment part might be beyond the scope." Mr. Keyser said, "That's why I didn't want to go too far in the hole but the concept is maybe if we explain what an MCL was." Mrs. Mensch said, "I think we really need to work on that part because I spend a lot of time talking to the public about pesticides and groundwater forming activities and the potential risk to people and it's like here's the perception and here's the reality and there's so much to bridge and a lot of it is explained in basic science and risk assessment which the fear and the public versus science actual risk there's so much to bridge there. There needs to be a lot of thought on how that data is presented even if we can't change too much about the data table. It is what it is." Mr. Keyser said, "If there's a better context to the concept that we have one value above it at one point in time it means we're paying attention. Susceptibility is basically the potential for something to impact something else." Mrs. Mensch said, "This is a benefit for people and I don't know if they take it that way. We're trying to protect people and it's almost like the government gets blamed for the fact that things are there." Mrs. Mensch continued, "Doesn't the Office of Drinking Water do a set number of exceedance over time that will trigger something? Is there any way to change that from one exceedance to a set in a set amount of time?" The Committee told Mrs. Mensch that is what is being discussed now. Mrs. Bataille said, "The way we look at it is one exceedance is an exceedance and then everything gets adjusted but that's why we're here having this discussion." She continued, "I love the idea of risk assessment but that you still need more data." Mr. Cartanza said, "But the fear factor is already there. You've already scared the people to a certain amount that 'hey, you're above this level and you're going to die tomorrow'. That's basically why people go crazy about farming and everything else. All of a sudden they see me spraying and it's like 'oh my God, he's putting this on the ground and we're going to drink it next week'." Mr. Cartanza continued to discuss.

Mrs. Mensch said, "Even we have concerns from someone watching the aerial application thinking that the next day their well is going to be contaminated." Mrs. Mensch continued to discuss. Mrs. Bataille said, "And that was one of our first points is that we definitely need education." Mrs. Mensch suggested having a cartoon water drop on the report and the Committee discussed.

Mr. Keyser said, "It's something I brought up before but the concept is we're twenty years removed from when we first wrote a plan. The ability to communicate information has changed significantly. And a lot of times in government we don't keep up with it the way we should and we have a great opportunity to share the things we know and we could do a series of You Tube videos discussing the concept of what is an MCL. What does it mean to me and what does susceptibility mean?" Mr. Keyser continued, "We're working on the rewrite of this Plan and we're looking for input on rewriting this Plan to make sure we communicate our message properly. We're a data driven agency. We make decisions based upon what's there and sometimes we make decisions that people don't understand because they don't understand what the data means. That's our job is to communicate what the data means. How do we do that and maybe not in every report but in one location to say 'if you have questions about this, here are these ten topics'. Very short sound bite type things that say 'this is what this means'." Mr. Keyser continued to discuss.

Mr. Cartanza said, "We just need to stop scaring the public and get the education. Not everyone is tech savvy." Mrs. Mensch said, "I don't think raw data translates at all. That cannot convey the message of what needs to be conveyed. That has to be an addendum or appendix." Mrs. Bataille said, "In the report we give the background of why we're doing this report, we give them a summary of what wells for this particular system are available, how they are constructed, then we talk about the geology of the aquifer they're coming from and I'm not only looking at groundwater stuff, but surface water, and the Water Resource Agency does those assessments for us." Mrs. Bataille continued to discuss examples. Mrs. Mensch asked Mrs. Bataille, "Has anyone ever taken a Consumer Confidence Report and put it into the Readability Index?" Mrs. Mensch continued to discuss on how to communicate to the public and she mentioned to aim at a certain grade level and not to use unnecessary, long technical terminology. Ms. Shannon said, "We have no flexibility because EPA tells us what language has to go in and we cannot change one word." Mrs. Mensch said, "You can adjust readability, though." Ms. Shannon said, "You can't change the words." Mrs. Mensch continued, "No, you can't change the words but you can shorten the sentences that adjust the readability." Ms. Shannon replied, "No, you can't change a thing."

Ms. Shelly Cohen addressed the Committee as a concerned citizen and she said, "I don't think we need to dumb things down. It doesn't necessarily have to be a scientific kind of thing but I think people are hungry for information and they can look up terms if they're not sure or if you're putting out reports you can put a key that identifies what some of those terms are so when they're reading it they'll understand. I think people are more intelligent than you're giving them credit for. I don't think you need to dumb it down. I think it just needs to be everyday language." Mrs. Mensch agreed with Ms. Cohen and added, "I don't mean to imply people can't understand it but there is something to be said for making it more understandable." Ms. Cohen described an example of a DNREC hearing she attended for Perdue recently and how people from the community were looking for figures. She added, "Narratives are fine. I think you need to support it with some factual information. Numbers matter and people can understand the numbers." Mrs. Mensch said, "I think what's happening is we're realizing that there's a disconnect and we're trying to figure out how do you take the information that's presented and make people understand what it means to them. And so there seems to be an issue where what we have right now is generating concerns. How do we let people know what they should be concerned about and what the numbers mean? So I think we're trying to get to where we are right now and move to a point where people are understanding what they're reading and if we don't describe, like we said the MCL or other things, they're not going to be able to really put it into place." Ms. Cohen replied, "You can add a definition or you can have a little table at the bottom of the report that people can refer to for certain definitions." She continued to say she doesn't think there has to be another way to figure out how to dumb it down or use 'baby language' to explain it. Ms. Cohen said, "People want the information and the majority of your population isn't like a bunch of two year olds at a third grade reading level or something. People can understand. Even people who aren't highly educated can understand. People are self-educating themselves. They're concerned about all these things. I'm not talking necessarily about an activist type. I think people in general want to know, what's in my water? What's being applied on the ground? There's a lot of spraying going on. What is it that they're spraying around? Honesty and simple everyday language would suffice supported by the numbers."

Mrs. Mensch said, "I think we're on the same page on that. So, in other words, if you're using language that makes sense to everyone, that's all we're saying. If you can adjust the language to make it easily understood by everyone and not add language that isn't necessary, then it makes the message easier to come across. And I don't know if there's a way to change all of it, though." Ms. Magliocchetti discussed that there will be another round of rule making and public comment on changing and Consumer Confidence Report language and format and Ms. Shannon said, "That will be good." Ms. Magliocchetti said she will continue to give updates on that. Ms. Shannon said, "Make it better." Ms. Magliocchetti said, "I would agree that in terms of the assessment we should be providing the information to the citizens at a level they can understand." She continued, "My question would be, though, to what extent did the prior assessment, is it continuing to cause concern from the public, do they look at it now and are you getting concerns from the public about what's contained in there in terms of susceptibility, so my question would be, how do we get this information into the public's hands so that they can be concerned about it as opposed to are you getting complaints that it's inflammatory or creating a 'fire in a movie theater' situation?" Mrs. Beckel described a color chart that was originally designed for susceptibility that listed least, moderate, and most susceptible.

Mr. Mirsajadi said, "Isn't there also susceptibility assessment text in the Consumer Confidence Report?" Mrs. Bataille replied, "The susceptibility analysis does go into Consumer Confidence Reports. So in terms of the actual Source Water Assessment Report, the Department typically doesn't hear from a lot of concerned citizens about them because they are public knowledge but they're really intended more for the utilities themselves." Mr. Mirsajadi said, "Those are the summaries in the Consumer Confidence Report." Mrs. Bataille answered, "We do try to keep it so that it's readable to your general citizens that may not have a background in water quality." Mrs. Bataille, Ms. Shannon and Mr. Mirsajadi continued to discuss.

Mr. Cartanza asked, "How old is the report and is it standard verbiage?" Ms. Shannon said, "Yes, it's all standard." Mr. Cartanza said, "But does the annual report need to be looked at?" Ms. Shannon replied, "That's out of the scope of this group." Mr. Cartanza said, "How far back do you go in years?" Ms. Shannon replied, "Annually. From January 1 to December 31 for a year we will take everything that we detected in finished water and is reported whether it's regulated or not. If it's tested and we don't find anything, that's not put in there." Mrs. Beckel said, "But you have to site the assessment that might be twenty years old over and over again." The Committee continued to discuss.

Ms. Cohen asked Ms. Shannon if something showed that it was increasing, would that be responded to as far as a treatment perspective? Ms. Shannon responded, "If something changes, yes. If something needs treatment, yes." Ms. Shannon and Ms. Cohen continued to discuss trigger levels and Ms. Shannon added that not every little utility does this but certainly the ones that the State is monitoring.

Mrs. Mensch asked Ms. Shannon, "Is there a way to compile concerns that you hear from citizens on points that they'll need clarification on, in addition to other utilities? Is there a way to pull what comments and concerns the citizens have together because if we're looking at addressing points of confusion or points of concern because of how we're disseminating the

information. It seems like we need to figure out what those points are." Ms. Shannon added, "I know Artesian probably agrees with what I'm saying, how about Dover? Do you get questions?" Ms. Sharon Duca replied, "The questions we get are from people that I would hate to change the process for because they believe that the aliens are coming and we're all killing them. Very, very few questions or anything in the Consumer Confidence Report from the regular public. Usually they're asking questions if we have data and we direct them to the Consumer Confidence Report because they weren't clear on where that's available."

Mr. Haggerty said, "We get most of our complaints if there's something put out in the newspapers or on the news, any media. That's what triggers a lot of our questions. Our Consumer Confidence Reports there's a minimal amount of calls with it but it's more so in the media so anytime there's a media scare than that triggers tons of phone calls and then we do reference them to the Consumer Confidence Reports and then we usually don't get too many calls back from them. The media is probably our worst enemy."

Mrs. Beckel said, "EPA sets the MCL's and the secondary MCL's and they put guidance documents out on the Health Advisory but the group could probably pick another number for sodium (she gave an example of 20 or 200) where we could say what exceeds the standard for metals. That's a suggestion from the American Medical Association."

Ms. Duca, Ms. Shannon, and Mrs. Bataille discussed how many systems actually test well water (sodium) and looking for what could cause health effects. Mrs. Bataille stated again that this is why she started this discussion at the last meeting. She said, "Do we need to have a better way of doing the risk assessment in terms of what is the risk of this system to a certain contaminant?" Mr. Cartanza said, "What will kill you. That's what I want to know. I want to know whether this is going to kill me and if it's going to take fifty years to kill me or this is going to kill me and it takes a year to kill me. That's basically, in my opinion as a consumer and as a farmer, we put these out there but what is the long term. How long is it going to take this to do damage to me and how long have I been drinking it prior to all these numbers." The Committee continued to discuss.

Mrs. Mensch said, "In the Consumer Confidence Report, do you break down what a primary contaminant is?" Ms. Shannon replied, "Yes, primary and secondary and all the explanations are in there." Mrs. Mensch asked if people question that and Ms. Shannon replied, "No." Mrs. Bataille said, "In the assessment, we do note if they are a primary or secondary or health advisory limit." Mrs. Bataille continued to discuss.

Ms. Shannon asked, "Would EPA have a problem if we were to, as a group, say that we either change that 20 on the sodium, which is really not helpful at all, or anything meaningful to be communicated to the public, and iron if we, you might not agree with that, Todd (Mr. Keyser), on the iron (Mr. Keyser replied, "I'm just listening.") but if we change either the level or we didn't have them constitute susceptibility for metals." Mr. Keyser said, "Is another way of saying that we weight a detection of iron the same way we weight the detection of lead?" Ms. Shannon said, "Exactly." Mr. Keyser said, "What we're doing is we're weighing them exactly the same. We're saying they have essentially the same health impact (Ms. Shannon mentioned, "And they don't.") and when it goes to susceptibility the susceptibility looks at it and says here's

one detection of iron. Ten years ago our Source Water Assessment says here's our high susceptibility when we should be paying more attention to a series of detections of lead, potentially, or MTBE."

Mrs. Mensch said, "And their susceptibility scale right now just talks about whether or not they be present. So there needs to be a weighing on health effects as opposed to just their presence." Mr. Keyser said, "And we can simply break it out between primary and secondary initially and say if it is a primary it carries more weight than the secondary. That way we're not changing numbers because I'm concerned about the concept of changing our methodology twenty years in." Ms. Shannon said, "Maybe changing the way that the rating is (Mr. Ross Elliott said, "And modify the table.") I'd be fine with that." The Committee continued to discuss.

Ms. Magliocchetti said, "I think that makes sense. As we discussed, the difference between primary and secondary I think is a rational way to go." The Committee continued to discuss. Ms. Magliocchetti continued, "And the other issue about the number of samples in the set that determines whether or not you're going to count that point, I think that's something you might want to be discussing. I don't know if the assessment is the appropriate format but internally what can you do to enhance your ability to get more data that speaks to that issue. Do you want to caveat it and say we need at least a certain number of data points before we'll make the call?" (Mr. Keyser added to declare a high susceptibility?) Mr. Rambo asked Mr. Grabowski if he'd like to speak on that topic. Mr. Grabowski said, "We still need to meet with Public Health, which I've reached out to a couple of times and just haven't been able to get back to Keith (Mensch) on that, but we met with our own internal folks, Sergio (Huerta) who runs our Lab and our water samplers under the Lab that Sergio supervises, and we believe putting together a strategic plan, working with Public Health, the Lab and the Source Water Program, that we can increase the frequency and the regularity of the samples coming in. And if you have something unusual and you wanted a confirmatory sample, I think we would have the control to go out there. Now it comes down to who's going to pay for all these tests, but that's where the next conversation has to go. But we're having those conversations because the inconsistency and the frequency of actually getting these raw water numbers has to improve if that's going to be a part of this assessment and probably should be."

Mr. Keyser said, "And to build on that, the Department as a whole, their ability to gather more data and have different Divisions working together. We have a policy in place through the Office of Drinking Water, if we see something below an MCL, what that does is it takes the data, puts it into our online GIS mapping tool that says 'in this particular area, it's a quarter of the MCL but we've seen it four times' which means the Division that that has the authority to go do something about it and remediate the problem is now paying attention. It doesn't mean that we are necessarily saying 'ok, here's definitely a problem' because we have instances where we have brand new sites that are discovered through public well index. We also have detection in public wells that we can trace back to vehicle accidents multiple years ago. Suddenly you get a spike of something and then it goes away because fuel was spilled. We see the data come across, we start paying attention to it. You look at it again and say 'well, that went away.' The data will tell us stories about how things are being impacted or not. So we're doing that now. And I think just mention the fact that we have these things established to communicate our data back and forth because the point of all this is to make sure what people are drinking is not adversely

impacting them. How we get there is up to us. We do have a standard format to follow to inform as we get there but the Department is still working on all of this, cross divisional lines, and we're doing well right now."

Ms. Magliocchetti said, "It almost sounds like throughout the course of the last ten to twenty years you don't have the data availability that you had then that you want now. It sounds like there's not the attention or resource management to get the same type of data that you need."

Mr. Cartanza said, "The biggest thing is the share-ability. We've got so many people looking at so many different things and everybody has a different criteria. I think the more you share the more we bring everybody together." He continued, "You can't have one person telling you this and another government agency telling you that. That's the problem when not enough people share the information to make sure it's the right information. One will say one thing and one will say something else and then we're right back in the middle again. That's the biggest fear of where I'm from is just that not enough information is totally shared between the agencies that are doing basically the same jobs. You have two different people doing two different things and are we really getting the proper information to give to the public? That is the problem."

Ms. Cohen said, "Well, maybe the information should be referred to another Department in DNREC that can use that information. Let's say you're detecting some level that's higher than it should be or some contaminant and around that well area there happens to be a business that might be the source of that and that business might need permits and maybe that information should be communicated to the Permitting office." She continued to discuss. Mrs. Mensch said, "That's a challenge definitely in government and I know the good thing is that meetings like this we tend to fill a little bit more and more interconnections and that's how a lot of times information gets passed on is you actually know someone." Ms. Cohen mentioned that it should just be a standard procedure and she continued to discuss.

Mrs. Mensch said, "We are moving to put all environmental data in one shared platform so that's helping a lot because what you can do is if you're searching in a certain area and another agency has noted data that affects that area, it's coming up so other people can see it. So that's one step we're taking, too, outside of calling someone."

Mr. Grabowski addressed the Committee and said that this has been a great conversation but asked Mr. Rambo if there were any other agenda items he wanted to get to. Mr. Rambo responded that this was the primary discussion and said, "It would be nice to touch on some comments that were received on either Chapters 3 or 4 but I'm willing to keep with this discussion if we're making progress towards coming up with a solution to the problem. I know Todd (Mr. Keyser) said earlier and Sheila (Ms. Shannon) has alluded to the use of the susceptibility table in the Consumer Confidence Reports. The table is nice. It is the overall snapshot of what the data is that's driving the assessment but we also have to go back to the narrative that's in the assessment because we will say that the 'iron is naturally occurring in this well, the sodium is naturally occurring, it's naturally occurring arsenic'. Arsenic's primary, sodium and iron are secondary. Todd (Mr. Keyser) and I were having a discussion the other week. Does this lead to a multi-tiered susceptibility? Do we do a primary MCL susceptibility, a secondary MCL susceptibility and then it really throws into the next one which is the hardest one

to grasp which is unregulated contaminants and emerging contaminants." The Committee began to discuss unregulated and emerging contaminants.

Mrs. Mensch said she would like to share with the Committee the Pesticide Enforcement Matrix. She said, "It has a lot of layers in it and it would have to be modified." She continued to discuss.

Ms. Shannon said, "I think we're going in the right direction of making it multi-tiered. I know it's making it more complicated but I think that the information will be more valuable." Mr. Keyser said, "And the information is there. It's just that we are, I think, doing a better job of explaining what it means." Ms. Shannon said, "Because if we have to give a snapshot,…"(Mr. Keyser added, "It's an informed snapshot.") and Ms. Shannon said, "Yes, thank you."

Mrs. Bataille added, "And I also think that the list of contaminants, Table 4-1, I think we had talked about making this more of a living document rather than the stagnant document that it's been for the past twenty years." Mrs. Bataille and the Committee continued to discuss.

Mrs. Bataille said, "Chapters 4, 5, and 6, once you start making changes there, they're all related." The Committee discussed.

Mr. Grabowski mentioned that the Committee at some point needs to have a conversation about how often these should be updated because right now there is not a schedule. The Committee continued a discussion regarding current assessments and reassessments.

Mr. Rambo said, "We do have the opportunity to change the format of our assessment reports and we are looking at adding more information about the water systems. We can discuss at a future meeting when we get to the actual report format."

Mr. Rambo concluded by saying, "It's now twenty minutes to twelve and I don't know if we want to dive into a Chapter now and today has been a good discussion. If there is desire to drive into a Chapter, I'm willing to pull up Chapter 3. Otherwise, we can go back to Chapter reviews at the next meeting."

The next meeting is scheduled for January 31, 2019, at 10:00 a.m. in the Tidewater conference room.

Mrs. Mensch asked if there was any way to keep the momentum going until the next meeting and Mr. Rambo suggested looking at the tables and try to redesign the tables. Mr. Rambo said, "Todd (Mr. Keyser) had put a comment about putting detection limits and methods." Mrs. Beckel said, "Well, they would have to be EPA Drinking Water methods." Mrs. Beckel, Mr. Keyser, Mrs. Mensch and Mr. Rambo continued to discuss.

Mr. Rambo said, "We can put it as its own table." Ms. Shannon asked Mr. Rambo for a recap of what the Committee can do during the interim and Mr. Rambo repeated it (looking at the tables and try to redesign the tables).

Mr. Rambo asked if anyone has any changes to put them on the Group.IO site.

ADJOURN – Douglas E. Rambo, P.G., DNREC, Division of Water

Meeting adjourned at 11:46 a.m.

These minutes are not intended to be a detailed record. They are for the use of the Source Water Assessment and Protection Program, Source Water Assessment Plan Subcommittee members in supplementing their personal notes and recall of Committee discussions and presentations and to provide information to Committee members unable to attend. Minutes recorded and submitted by Kimberly Burris.

Attendees are listed below alphabetically, last name first:
Bataille, Amber – DNREC, Division of Water, Source Water Protection Program
Beckel, Anita – Delaware Rural Water Association
Burris, Kimberly – DNREC, Division of Water, Water Supply Section (Administration)
Cartanza, Sr., Paul – Delaware Farm Bureau
Cohen, Shelly - Public
Duca, Sharon – City of Dover Public Works
Elliott, Ross – DNREC, Division of Waste & Hazardous Substances, Tank Management Branch
Grabowski, Matthew – DNREC, Division of Water, Water Supply Section Manager
Haggerty, Kenneth – Artesian Water
Keyser, Todd – DNREC, Division of Waste & Hazardous Substances
Magliocchetti, Cathy – U.S. EPA Region 3
Mensch, Laura – Department of Agriculture
Mirsajadi, Hassan – DNREC, Watershed Assessment
Rambo, Douglas – DNREC, Division of Water, Source Water Protection Program
Shannon, Sheila – Tidewater Utilities